

REMARKS

Further and favorable reconsideration is respectfully requested in view of the foregoing amendments and following remarks.

New claims 13-20 have been added to the application. Support for these new claims is found on page 3, line 20, and page 6, line 17 – page 7, line 6 of the specification.

The patentability of the present invention over the disclosures of the references relied upon by the Examiner in rejecting the claims will be apparent upon consideration of the following remarks.

Thus, the rejection of claims 1-12 under 35 U.S.C. § 103(a) as being unpatentable over JP '482 in view of JP '449 is respectfully traversed.

The Examiner takes the position that JP '482 discloses a polyol curable fluororubber useful for manufacturing seal packing comprising fluororubber, magnesium oxide and a mixture of thermal black and bituminous coal, in amounts which overlap Applicants' recited ranges. The Examiner admits that JP '482 fails to include 0.5 to 5.0 parts by weight of hydrotalcite group compound. *[The Examiner incorrectly asserts in the second line from the bottom of page 2 of the Office Action that JP '482 teaches hydrotalcite group compound. However, in lines 2 and 3 on page 3 of the Office Action, the Examiner correctly states that JP '482 fails to teach this component.]* The Examiner asserts that JP '449 discloses a polyol curable fluororubber useful for manufacturing seal packing comprising a fluororubber and a hydrotalcite-analog compound. Lastly, the Examiner states that it would have been obvious to one of ordinary skill in the art at the time of the invention to include the hydrotalcite-analog compound of JP '449 into the fluororubbers of JP '482 to produce fluororubbers having good oil-resistance and sufficient properties in processability, mold-releasability and vulcanization properties.

However, the fluororubber composition set forth in Applicants' claim 1 requires 0.5 to 5 parts by weight of a hydrotalcite group compound. As admitted by the Examiner, JP '482 does not teach a hydrotalcite group compound.

Additionally, the hydrotalcite group compound required by claim 1 of the present invention is clearly distinct from the hydrotalcite-analog compound of JP '449. A hydrotalcite group compound is not the same as a hydrotalcite-analog compound. An analog is a compound whose physical structure is related to that of another compound, but may have very different chemical and biological properties. JP '449 teaches an analog of hydrotalcite, rather than a

hydrotalcite group compound. This is further evident based on the general formulas of the two types of compounds, which are very different. JP '449 teaches that the general formula of the hydrotalcite-analog compound is $Mg_xR_y(OH)_zCO_3 \cdot nH_2O$, where R is Al, Cr or Fe, (x) is 4-6, (y) is 2 and (z) is 12-18. On the contrary, the general formula of the hydrotalcite group compound of the present invention is $Mg_{0.7}Al_{0.5}O_{1.15}$. It is clear, based on the meaning of "analog", as well as the general formulas of the compounds, that the hydrotalcite-analog compound of JP '449 differs from the hydrotalcite group compound of Applicants' claim 1. Therefore, the combination of references relied upon by the Examiner does not teach or suggest the composition set forth in Applicants' claim 1.

Since claims 2-12 are directly or indirectly dependent on claim 1, the subject matter of claims 2-12 is patentable over the combination of references for the same reasons that the subject matter of claim 1 is patentable over the combination of references.

Furthermore, new claims 13 and 14, which recite the particular general formula, have been added to the application.

Additionally, regarding dependent claims 4, 5 and 7-12, the step of "heat treating at about 250 to 300°C", as taught by JP '482, differs from "a step-wise temperature elevation treatment in a temperature range of 100°C to 300°C", as required by Applicants' above-recited claims. A step-wise temperature elevation treatment is defined in Applicants' specification as a treatment in the form of a step in which the desired temperature is kept for a given time, and then the temperature is raised, and again, another desired temperature is kept for a given time, and the procedure is repeated. (See page 6, lines 17-22 of Applicants' specification.) Neither JP '482 nor JP '449 teach or suggest a step-wise temperature elevation treatment. The teaching of JP '482 relied on by the Examiner refers to an ordinary heat treatment, not a step-wise temperature elevation treatment. Therefore, the combination of references relied upon by the Examiner do not teach or suggest a step-wise temperature elevation treatment, as required in Applicants' claims 4, 5 and 7-12.

Furthermore, new claims 15-20 have been added to the application to more specifically define the step-wise temperature elevation treatment.

Additionally, the object of JP '449 is to obtain a polyol-vulcanizable fluororubber composition having improved engine-oil resistance while keeping the processability (mold-releasability) and vulcanization properties, and useful for oil-seal, packing, etc., of an engine oil

part by compounding a polyol-vulcanizable fluororubber with a hydrotalcite analog compound of the particular formula. On the contrary, the object of JP '482 is to provide a cured molded product of fluororubber to be used as a grommet for sensors, a seal packing, etc., where the fluororubber is usable under high temperature circumstances by using a conventional fluororubber.

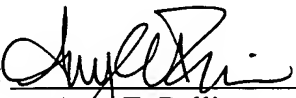
Therefore, the inventions of JP '449 and JP '482 are very different and the combination of the references is untenable.

For the above-discussed reasons, the invention of claims 1-12 (and new claims 13-20) is clearly patentable over JP '482 in view of JP '449.

Therefore, in view of the foregoing amendments and remarks, it is submitted that the ground of rejection set forth by the Examiner has been overcome, and that the application is in condition for allowance. Such allowance is solicited.

Respectfully submitted,

Masaya OCHO et al.

By: 
Amy E. Pulliam
Registration No. 55,965
Attorney for Applicants

AEP/nrj
Washington, D.C. 20006-1021
Telephone (202) 721-8200
Facsimile (202) 721-8250
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